

Katmai National Park and Preserve

National Park Service
U.S. Department of the Interior



Bears of Brooks River

A Photographic Guide to the Lives of Katmai's Brown Bears



Contents

How to Use This Book:	3
Chapter 1: Brooks Camp	4
Chapter 2: An Introduction to Brown Bears.....	7
Chapter 3: Adult Male Bears	12
Chapter 4: Adult Female Bears.....	31
Chapter 5: Subadult Bears.....	46
Chapter 6: Cubs	49
Chapter 7: Bears No Longer Seen at Brooks Camp.....	50



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How To Use This Book

This book is intended to present the basic life histories and identifying characteristics of some of the most frequently seen bears along Brooks River within Katmai National Park. It is not intended to be a complete checklist of bears at Brooks River, but rather a representative sample.

Individual bears are difficult to identify, especially the first few times you see them. The information in this book is drawn from thousands of hours of data collection, which was then used to document long term patterns of bear use along the river.

Many bears in this book have unofficial nicknames. Being able to identify or name a bear does not mean it has stopped being a wild animal. At Brooks Camp people must

keep at least 50 yards (approximately 46 meters) away from bears, and all bears should be treated as wild animals at all times. During a close or surprise encounter, never make decisions based on “knowing” a bear. The wildness of these animals makes the Brooks Camp experience possible, not only for ourselves but for future generations.

In this book the bears are arranged first by age classification and sex (adult males, adult females, subadults, and cubs) and then numerically by the number biologists have randomly assigned to them. Below is a sample page.

Early and Mid-Summer Photos:
Look for shed patterns, scars, and less body fat.

Late Summer and Fall Photos:
Compare these with mid-summer photos noting the differences in fur color and overall size.

Photo Date

In the ID Marks and Hints section, read about a bear's body shape, size, color, scars and wounds, shed patterns, ear shape, and claw color.

The Life History section presents a bear's estimated age (if known), behavioral traits, preferred fishing spots, fishing techniques, and other information.

Number and Nickname

Age Classification and Sex

Bear 410 Four-Ton

Adult Female



ID Marks and Hints

#410 is a large adult female. Her coat is medium brown with a grizzled appearance on her head and neck.

She has a recognizable dish-shaped face and prominent muzzle. Her claws are dark, and she lacks distinctive scars.

Life History

#410 is one of the largest females frequenting the Brooks River and fishes almost anywhere. She has been observed fishing in Naknek Lake, the lower Brooks River, and both above and below the falls.

In 2007, she returned with two spring cubs, marking her third litter. She returned to the Brooks River Area in 2008 with the same two cubs, then yearlings, but lost one in early July.

She is arguably the most human habituated bear to be found using the Brooks River, even while caring for cubs.

#410 has been observed with people and heavy equipment operating within 15 meters. She will sleep on the trail near the bridge and in front of or underneath the wildlife viewing platforms, even with many people standing directly above. She may tree her cubs near the viewing platforms while she fishes.

Chapter 1: Brooks Camp



Sockeye salmon drive Katmai's ecosystem. At Brooks Camp, bear activity is dependent on salmon.

Salmon and the Brooks River

The rivers, lakes, and streams of Bristol Bay host the closing acts of an epic migration, one of the largest on Earth. Each summer tens of millions of sockeye salmon leave the open waters of the North Pacific, driven to return to the exact spawning grounds in which they were hatched years earlier. For several hundred thousand salmon the path leads up Brooks River, past one of the world's highest concentrations of brown bears.

Shortly after each summer solstice, sockeye salmon begin arriving at Brooks Camp. After leaving Bristol Bay, they swim up Naknek River, into Naknek Lake, and reach Brooks River. This is the final stop for some fish; here they will spawn and die. For others, the voyage is not quite over. Their destination lies beyond Brooks River, in the small streams and creeks feeding into Lake Brooks.

As they approach their spawning grounds, sockeye salmon reach sexual maturity. Their silver color disappears, replaced by red-colored bodies and green heads. Male's jaws become hooked, and both sexes develop teeth.

Using their tails, female sockeye excavate nest sites in the river bottom. When a male approaches, she releases eggs over her nest site. The male fertilizes the eggs with milt, and the female buries them in the gravel. Once spawning is completed, a female will defend her redd as long as she can; males play no role beyond fertilizing eggs.

Spawned salmon are on borrowed time. Their life purpose complete, they will never return to the ocean. As summer

progresses and gives way to fall, the salmon slowly weaken and die.

The eggs they leave behind lay in the redd for about four months. After hatching, the tiny alevin remain in the gravel until spring. When large enough, young salmon fry move from the rivers to the lakes, where they live two years. In the next phase, salmon smolt migrate to the ocean.

The salmon feast in the North Pacific for two additional years. There they grow into the large, beautiful, but doomed fish who return in their fourth or fifth year to produce the next generation of sockeyes.

Unintentionally, some fish become meals for the largest carnivore in North America: the brown bear. Due to Brooks Falls, the river is among the first places where migrating salmon become vulnerable; this makes the area an important food source for the lean bears of early summer. Later, in the fall, the spawned-out salmon play an important role in the bears' preparation for winter before they enter the den.

How, where, and when bears fish along the river depends on many factors such as the time of year, salmon density, locations of spawning activity, the age and relative position of the bear within its social hierarchy, and its preferred fishing techniques.

The Brooks River

Because it is one of the first streams in the region where bright, energetic, and pre-spawned salmon are available to bears, the Brooks River hosts one of the greatest seasonal concentrations of brown bears anywhere on earth.

The time of year along with salmon densities and spawning activity dictate when, where, and how bears feed along the river.

The cut bank provides a fishing area for bears that are less tolerant of people.

In July, the riffles area below Brooks Falls is fished most often by less dominant bears and females with offspring.

Naknek Lake and the river's outlet

Brooks Camp

Lake Brooks and the river's start



During late summer and fall, bears usually concentrate in the lower half of the Brooks River. At this time, bears are primarily fishing for dead and dying salmon.

Early in the salmon run, Brooks Falls creates a temporary barrier to migrating salmon. This results in a particularly successful fishing spot for bears.

At left, just beyond the photo is the Fish Ladder.

Less dominant bears often wait for their opportunity to fish the most preferred spots.

Downstream to the Riffles and Naknek Lake



Bear Safety at Brooks Camp

For many people, a trip to Brooks Camp is a once in-a-lifetime experience. To protect that experience for future generations, the National Park Service requires all arriving visitors to attend a 20 minute bear orientation. This “bear school” teaches visitors how to behave in ways protecting both themselves and bears. The most important things people should do include:

- Keeping an appropriate distance between themselves and bears. People must stay at least 50 yards (~46 meters) away from all bears in the Brooks Camp area.
- Preventing bears from associating human gear with play items. While at Brooks Camp, any items brought outdoors must be within arm’s reach at all times.
- Preventing bears from obtaining human food and garbage. At Brooks Camp, people are not allowed to carry or

consume food and drinks (besides water) while outside, except in designated picnic areas.

By following these rules, we prevent bears from learning behaviors that will lead them into conflicts with humans. Other things to consider while visiting Brooks Camp:

- Bears have the right of way! If you encounter a bear, you should give it the space it needs to continue fishing, walking, or sleeping. At times, bears may block access to areas such as the viewing platforms. Pack your patience and remember the bears’ freedom is what makes Brooks Camp an exciting destination.
- Peak bear viewing seasons occur in July and September. Relatively few bears use the Brooks River area in June and August. During these months, there may be days when no bears appear along the river.

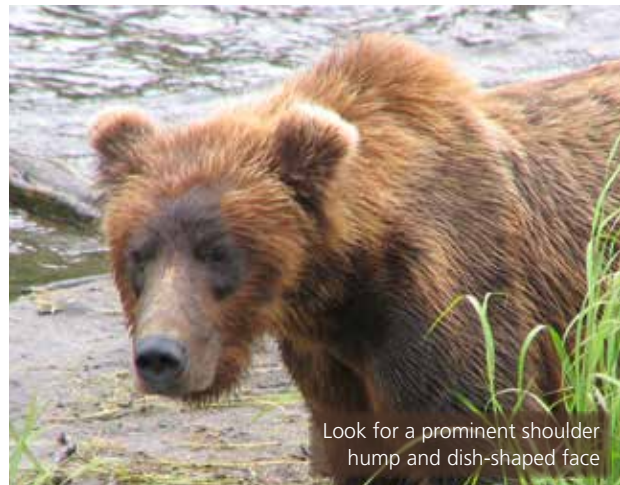


The Brooks River connects the waters of Lake Brooks to Naknek Lake. The mouth of the river at Naknek Lake can change dramatically from year to year, and no longer looks like the map suggests.

An Introduction to Brown Bears



Brown bears have access to coastal food sources like salmon



Look for a prominent shoulder hump and dish-shaped face



Fur color ranges from blonde to brown (middle) to dark brown (right)



ID Marks and Hints

When visually identifying brown bears, there are several key things to look for. Brown bears usually have a rounded and dish-shaped face, unlike the faces of black or polar bears that usually have a more “Roman” nose profile.

The fur of brown bears range from blonde to dark brown. As a general rule, their coats tend to darken with age and the season.

Polar bears and black bears also lack the prominent shoulder hump found on brown bears. This hump is a mass of muscle thought to be useful while the bear digs for roots and other food sources.

There are also distinct differences in the footprints of brown, polar, and black bears. Consult a good field guide for an explanation of this.

Life History

The only bears to regularly inhabit Katmai National Park and Preserve are brown bears.

Taxonomists currently consider brown bears and grizzly bears to be the same species and the difference between the two is somewhat arbitrary. In North America, brown bears are distinguished by their access to coastal food sources such as runs of salmon, while grizzlies reside further inland.

Bears are eating machines, and their survival is dependent on attaining enough calories over the

course of the spring, summer, and fall to sustain them through their denning period.

Hearing and vision is estimated to be equivalent to humans, but a bear's sense of smell, which is many times better than a dog's, sets them apart. Bears use scent to communicate everything from dominance to their presence in an area to receptivity to mating.

A wild brown bear's average life span is 20 years, although bears over thirty years of age have been documented.

How Many Bears Frequent Brooks River?

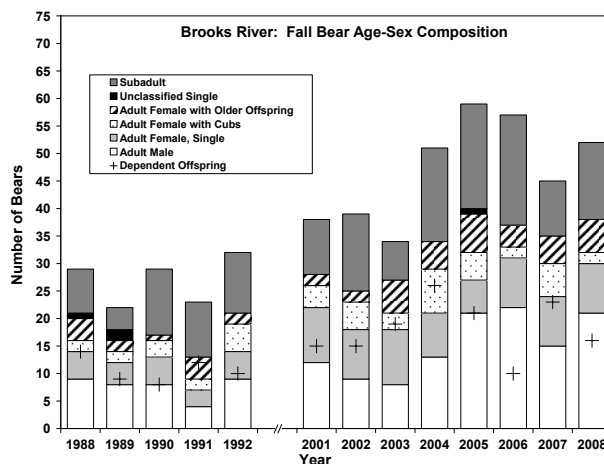
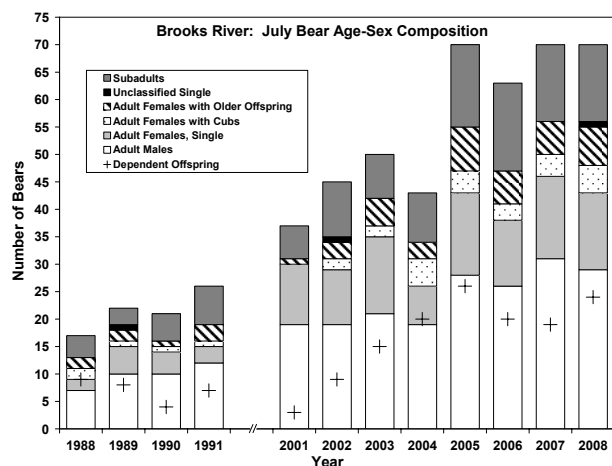
During late June through July the annual cumulative total number of independent bears identified regularly using Brooks River during 2004-2008 has ranged from 43 to 70. During September through early October, the annual cumulative total has ranged from 45 to 59. Typically, another 5 to 10 transient bears have also been documented in each of the two monitoring periods annually. There are several factors that may be related to the increasing trend in bear numbers at Brooks, including:

- Over the past 20 years, increasing management emphasis has been placed on minimizing bear-human conflicts. Over their lives, the experience of cubs that accompanied their mothers to Brooks may consist largely of relatively benign contacts with people there. Thus, we would expect the number and proportion of adults tolerant of people to increase.

• Salmon runs have been generally strong throughout the region during the past 20 years. In the Naknek River watershed, which includes Brooks River, the Alaska Department of Fish and Game has reported a 20 year average escapement of 1.8 million fish (1989–2008). During this same period, weather conditions have been relatively mild. Bear survival and productivity may have increased as a result.

- Brooks River is one of the first streams in Katmai where migrating salmon become accessible to bears (and the caloric value of bright pre-spawned salmon is exceptionally high). In contrast, spawning and spawned-out salmon are available at several streams during fall. Differences in adult male representation between July and fall may in part reflect this seasonal distribution of resources.

Below: Trends in bear composition documented at Brooks River through observational sampling methods. Bears included in these figures were observed using the river during at least three separate sampling sessions.



Here Today, Gone Tomorrow: Seasonal Bear Use at Brooks

Rangers and biologists are frequently asked, “Where are the bears?” The answer depends on the season, but finding the answer is as simple as knowing where the bears are finding food.

In the spring, very few bears can be seen in the Brooks Camp area. With no high calorie food sources in the area, like adult salmon, bears are dispersed throughout the region grazing on grass and sedge, hunting moose calves, and competing for mates.

In late June, salmon begin to migrate into the Brooks River. That’s when bears begin to arrive en masse to fish for salmon at Brooks Falls. Bears are typically seen fishing at Brooks Falls throughout July.

In mid summer, bears will follow the migrating salmon to many streams and rivers in the area where the fish spawn



This view of Brooks Falls and the Falls platform was taken in May. Bears are not commonly seen at Brooks Falls in certain seasons.

earlier than in the Brooks River. Consequently, few bears are found at Brooks Camp during much of August. For the bears, salmon fishing is easier in other places.

Once the salmon begin to spawn and die in the Brooks River, many bears will fish here in September and October. These patterns of use reflect the bears’ adaptability that helps them survive seasons of abundance and famine.

Do the same bears return to Brooks River each year?

Yes. Typically many of the bears that are observed each year are recognized from previous study years.

For example, in 2008, 59 of the 70 independent bears identified regularly using Brooks River during July were bears recognized from previous years, as were 35 of the 52 independent bears identified regularly using the river during fall. The majority of bears not recognized during both July and the fall were subadults. Recognizing bears from year to year is difficult; therefore, these figures should be considered minimum estimates.

A number of bears are also typically recognized each year between the July and fall (late August into October) periods of bear use at Brooks. However, it should be noted that recognizing bears between these periods within a single year tends to be more difficult than recognizing animals across years within the July or the fall bear use



Bear #409, an adult female, in July (top) and September (bottom) 2011.

periods. Our minimum estimate of independent bears that were seen at Brooks River during both July and the fall of 2008 is 36. Analysis of DNA samples collected from bears at



Bear #747, an adult male, in July (top) and September (bottom) 2012.

Brooks River during June-July and fall of 2005–2007 may provide additional insight regarding patterns of use by individual bears.

Monitoring Bear Use of Brooks River

Observational sampling methods are used to record data on bear and human use of Brooks River, so that the following parameters may be compared between seasons and among years: (1) bear numbers, (2) bear activity rates by age-sex class and individual, (3) age-sex and behavioral class composition of bears seen, (4) bear “arrival” dates, (5) bear fish capture rates, and (6) relative bear and human use of observation zones below Brooks Falls.

The river from Brooks Falls down to the river mouth on Naknek Lake is divided into several observation zones for data collection. Sampling is conducted from the public viewing platforms at the Falls and near the floating bridge, as well as from a tree-stand in the cut bank area. Observation sessions are scheduled to

produce balanced sampling by time of day and sample zone. Arrival and departure times are recorded for each individual bear seen during an observation session, and counts of people and behavior of each bear in view are recorded at 10 minute intervals. In addition, fish caught and time spent fishing is recorded for a subsample of the bears seen.

Records of identifying characteristics of individual bears are maintained, and each bear identified is assigned a unique identification number. The age-sex class of each bear is also recorded. Age classification is a subjective determination, based primarily on size and behavior (and often on the documented identification history of the bear). Sex is determined by observation of urination, posture, genitalia, or presence of offspring.

Photo records are maintained for as many different individuals as possible. The photo records are an important aspect of recognizing individual bears across seasons and years, particularly when several biologists are involved in data collection.



Biological Technician Katja Mocnik conducts a sampling session at Brooks River.

Hibernation in Bears

One remarkable adaptation that has evolved in some mammals is hibernation. Hibernation is a state of dormancy that allows animals to avoid periods of famine. It takes many forms in mammals, but is particularly remarkable in bears.

In the Katmai region, most bears go to their den and begin hibernation in October and November. Hibernation in bears is most likely triggered by a shortage of high calorie food as well as hormonal changes. After a summer and fall spent gorging on food, a bear's physiology and metabolism shifts in rather incredible ways to help them survive several months without food or water.

When hibernating, a bear's body temperature remains above 88°F (31°C), not much lower than their normal body temperature of 100°F (37.7°C). This is unlike other hibernating mammals such as ground squirrels whose body temperature drops close to freezing. A bear's heart and respiratory rates, however, drop dramatically. They average only 1 breath per minute with a heart rate of 8-10 beats per minute in hibernation.

They still need to burn many calories per day while hibernating—sometimes more than 4000 calories per day. When they emerge from their dens in the spring, bears have lost up to 33% of their body weight. Lactating females can lose even more weight.

Surviving a winter without food or water requires fuel, and a bear fuels its body on the fat reserves it acquired dur-

ing the previous summer and fall. Bears do not eat, drink, urinate, or defecate while in the den. Fat is metabolized to produce water and food, but instead of defecating or urinating to eliminate waste, bears recycle it. Their kidneys shut down almost completely and urea, a major component of urine, is recycled into proteins that maintain a bear's muscle mass and organ tissues. Without the ability to recycle urea, ammonia would build up to toxic levels and poison the animal. Since they are living off of their stored body fat, bears also have very high levels of cholesterol in their blood. Remarkably, healthy bears emerge from hibernation in the spring without losing muscle mass and bone density, or suffering from hardening of the arteries.

Can the abilities of a hibernating bear help people in the future? Perhaps. If we can unlock the physiological secrets of a hibernating bear, then we may be able to find new ways to treat kidney, heart, and bone diseases. We also might be able to more safely send humans on long distance space expeditions if we can find a way to hibernate like a bear.

In the depths of winter, when Katmai's landscape is covered in snow and ice and the wind is howling fiercely, bears are nestled snug in their dens and sleep soundly. They feel no thirst or hunger at this time. Bears are survivors with a very special adaptation—hibernation—that allows them to survive harsh wintertime conditions and famine remarkably well.

In Katmai, bear dens tend to be concentrated on well drained, steep slopes that collect a lot of snow. This den on Dumpling Mountain was excavated 6 feet (1.82 meters) into the mountain side. The hiking poles to the left of the bear den are 3.94 feet (120 cm) long.



Death of a Bear

Wild bears are subjected to many risks during their lives. Starvation, spring time avalanches, illness, injury, and predation are just some of the reasons that bears may die. Outside the boundaries of Katmai National Park, bears can be hunted for sport and subsistence, and humans are significant cause of mortality for bears in many areas of the world. In contrast, Katmai National Park is one of the few places where the population of brown bears is naturally regulated.

Dead bears are rarely found in the wild. Even in Katmai, a place with some of the highest densities of bears anywhere in the world, rangers and biologists rarely see a bear die or find dead bears. Still, the information gathered by biologists in the past that can help us glean some knowledge about the end of a bear's life.

Around the Brooks River, bears have been seen killing other bears, like subadults and cubs, on rare occasions and in 2008 one bear was observed dying in the Brooks River (see bear #219 on page 54).

One study on the Pacific coast of Katmai recorded 17 natural mortalities of female bears from 1989-1996. Eight of those 17 adult females were killed by other bears. One female apparently died of starvation and one died after being caught in a spring time avalanche. Six females died

in the spring, six died in the summer, and four died in the fall. During that same study period, one adult male and subadult male were found dead and both appeared to have been killed by other bears.

While brown bears can live more than 30 years, they commonly live 20 years or less. Most bears, however, live short lives. While Katmai may have some of the highest densities of bears in the world, it also has one of the highest mortality rates for cubs. Two out of three cubs may not survive their first year.

From 1989-1996, 99 cubs from 48 litters were tracked via different radiocollared females. 61 of those cubs were lost, including 11 mothers, indicating that the survival rate of females with cubs is lower than single females. This is a very low (0.342) survival rate for cubs, one of the lowest ever measured in North America.

Katmai's bears live in an unforgiving world, and it can be hard to watch an adult bear or cub die. As wild animals, they receive no veterinary care or preventative medicine. Bears have evolved to bear tough and resourceful animals, but their lives do come to an end, sometimes peacefully and sometimes painfully.

This dead bear was found on the slopes of Mount Katoliat. In Katmai, one of the main natural causes of bear mortality is other bears. This bear was apparently fed upon by other bears, but the true cause of its death remains unknown.



Adult Males



ID Marks and Hints

The largest bears frequenting the Brooks River are adult males, also called boars. Like full grown adult females, their bodies appear filled in, their heads appear smaller in proportion to their bodies, and their ears are generally wide-set.

Looking for genitalia is the easiest way to identify male bears, but you can also determine the sex

of adult bears by watching them urinate. Male bears will urinate straight down between their hind legs.

When male bears are shedding in the early summer, numerous scars are often visible.

Life History

Due to their large size and strength, no other class of brown bear is able to compete physically with a large adult male.

They can stand 3-5 feet (.9-1.5 m) at the shoulder and measure 7-10 (2.1-3 m) feet in length. Most adult males typically weigh 600-900 pounds (272-408 kg) in mid-summer. By October and November, large adult males can weigh well over 1000 pounds (454 kg).

The best fishing spots at Brooks Falls are dominated by adult males. Hierarchy and displays of dominance play important roles in preventing

these animals from entering into violent battles. Wounds, and their associated scars, are often received during fights with other males. These fights can be the result of competition for food resources (access or appropriation) or for the opportunity to mate with females.

Bear 32

Chunk

Adult Male



ID Marks and Hints

#32 is young, medium sized male. His coat is medium brown and he has darker spots around his neck and shoulder. A scar above his right eye, as well as his large hindquarters, are distinctive features.

Life History

#32 was first identified as a sub-adult in 2007, and has since reached adulthood. He remains subordinate to most other adult bears, and is often begging or scavenging fish scraps. When fishing, he often stands up to get a better view.

He fishes at the falls and the lower river. He was one of the few bears in the Brooks Camp area during June 2012 and June 2013. During this time he appeared to be courting females, like #130, in the area.

Bear 45

Tatonka

Adult Male



ID Marks and Hints

#45 is an adult male with a medium brown coat. He is most recognizable by his sloping body shape, which gives him the appearance of having shorter hind legs than most bears. He also has a distinct face, characterized by closely spaced eyes and a short, upturned muzzle.

Life History

First observed as an adult in 2007, #45 is a regular visitor to Brooks Falls during July, but he has never been seen in the fall.

He is usually seen moving back and forth between the falls and the riffles, and his behavior suggests that he is intolerant of bear viewers and anglers.

Bear 51

Diver Junior

Adult Male



ID Marks and Hints

#51 is an adult male with large, oval ears and a blonde coat. He has a long muzzle that tapers nearly into his forehead. In 2011, he received a deep wound to his left hip that may be visible as a scar during shedding.

Life History

Although #51 is nicknamed Diver Junior, there is no known relation between this bear and the famous Diver, who was last seen in 2000. #51 is one of the few bears who dive completely underwater when fishing. He was first classified as a subadult bear in 2007.

#51 can be seen walking below the Falls Platform to and from the fish ladder. He commonly fishes the far pool on the north side of the falls.

Bear 83**Wayne Brother****Adult Male**

ID Marks and Hints

#83 has a medium-large body with a light brown coat and dark eye rings. He lacks prominent scars but has some on his head and neck. In July a round whitish scar may be visible on the left side of his face.

Life History

#83 is a young male first classified as an adult in 2008. This is another adult bear that matured along the Brooks River. He is the offspring of #438 and the sibling of #868.

In 2012 he arrived at Brooks Camp with a large, round wound to his right shoulder. This wound was deep enough to expose the muscle underneath. It should result in a distinct scar.

Even though #83 and #868 undoubtedly shared many of the same learning experiences as cubs, they differ in their fishing styles. In July, he can be seen fishing below Brooks Falls in the jacuzzi and the far pool. In contrast, his sibling #868 is often seen fishing the lip. In the fall, #83 fishes the cut bank and lower river like most bears. In July 2013, #83 was also a more dominant bear at the falls than his sibling.



July 2012



Sept. 2012



June 2009



#89 as a yearling cub in Sept. 2007.



Sept. 2010

ID Marks and Hints

#89 is a medium sized young adult bear. He has a distinctive face with dark, round eye-rings and a straight muzzle. His coat is usually very blonde, but it does darken in the fall.

Life History

As a cub, #89 was very recognizable and as a result he is one of the few bears whose mother is known. Born in 2006, he is the offspring of #435 and was first observed as an independent bear in 2008.

He seems tolerant of other bears, even at Brooks Falls. He will fish at Brooks Falls in July, but is usually displaced by larger, more mature males. #89 will scavenge fish from older bears.

However, he has grown significantly since 2008 and likely will grow much more as he continues to mature. In July 2013, he would regularly fish

at Brooks Falls near much larger bears that tolerated his presence.

As a yearling cub in 2007, his right front leg was obviously injured and he limped noticeably throughout the summer. Remarkably, by the early fall, his leg appeared to be healed. The injury was not noticeable in 2008, which was his first summer as an independent bear. This is another example of the resilient nature of bears and their ability to persevere through significant injuries.

Bear 92

Enigma

Adult Male



ID Marks and Hints

#92 is a medium large, long bodied male who has a uniform light brown coat, tan claws, dark eye rings, and a slight lip droop. His ears are blonde and triangular.

Life History

#92 was first classified as an adult male in 2008. He is not habituated to the presence of people, and visitors should not expect to see him very often. He will fish at Brooks Falls but is rarely present when people are on the Falls Platform. He also appears to avoid other bears, but has been observed stealing fish.

Many bears using Brooks River show some level of habituation towards humans, but some like #92 do not. This bear has been observed reacting to loud noises or sudden movements from people on the Falls Platform.

When people are present at Brooks Falls, he rarely approaches the platform side of the river. It is important to give bears like #92 the opportunity to feed in the absence of people. This is the primary reason for the seasonal, nighttime closure of the Falls Platform and boardwalk.

He not been observed in the fall.

Bear 218 Ugly

Adult Male



ID Marks and Hints

#218 is a medium large bear with a dark blonde coat that is lighter towards his head. When shedding, his coat will be patchy with dark, bare spots. He has blonde, wide-set ears.

His dark eyes contrast with his coat and #218 has a short blocky nose. He lacks distinctive scars, but can have numerous small ones. His claws are dark.

In late September 2010, he had a large wound on his left rear leg. In 2011 he had a large, round scar in this area.

Life History

#218 uses some of the most efficient fishing techniques at Brooks Falls. He has been observed fishing successfully almost anywhere, but seems to prefer fishing the lip and in the jacuzzi.

After catching many fish, he will often eat only the fattiest, most calorie rich parts of the fish (brains, roe, skin) and leave the carcass for scavenging bears and other animals. When first described as a young adult male in 2001, he fished anywhere he could fit in, but was easily displaced by larger bears. More recently he has become one of the more dominant bears at Brooks Falls.

He is responsible for the 2007 scar on #489's left hip.

This bear seems to be in the prime of his life. In 2009 he arrived at Brooks Falls with numerous, small wounds presumably received while fighting other bears. Few other bears can now displace him from his preferred fishing spots.



ID Marks and Hints

#274 is a young adult male. He is large for his age, and has long legs. His coat is blonde but quickly sheds out, leaving a dark brown color in its place except for a golden crown along the top of his head and ears.

He is believed to be the offspring of #438.

Life History

Classified as a 4.5 year old subadult in 2011, #274 appears more confident around larger adults than other bears his age, often approaching them much closer than other young bears would dare.

He has attempted to fish the lip, fish ladder, and jacuzzi, but appears to be too inexperienced to have much success. He has had more success fishing at the riffles and by scavenging scraps from other bears. In one notable moment, he managed to steal a fish from #856 when that bear confronted another male. Seeing that #856 had left his fish unattended, #274 swooped in,

picked it up, and ran quickly down river before the dominant boar turned around.

Bear 469

Adult Male



ID Marks and Hints

469 is a medium-large male bear. His claws are dark and he has short, round, ears. His muzzle is blocky and straight.

#469's coat is brown. His most distinctive feature is a blonde, diamond shaped patch of fur on his left shoulder.

Life History

#469 was first observed in 2001 and was classified as an adult bear at that time. From 2001-2011 he was an irregular user of the Brooks River and only in the fall. When he was seen in the fall, he would fish the lower Brooks River and in Naknek Lake, but he was usually only seen in the morning and would leave the area when human activity increased. This indicates that #469 is not tolerant of people.

In 2013, this pattern was broken and he was seen fishing regularly at Brooks Falls for the first time in July, even when large numbers of people were watching from the Falls Platform.

It is unknown why this bear changed his habits. When #469 arrived in 2013, he was limping and would not place any weight on his left hind leg. This injury may have reduced his ability to find food elsewhere, or he may have just discovered the fishing opportunities at Brooks Falls in July.

Whatever the reason, #469 modified his behavior to fish at Brooks Falls. Bears, even older bears, are able to shift their habits and behaviors when it is necessary for survival.

This bear was also seen guarding a bear carcass in October 2012. It is unknown whether or not #469 killed the other bear.



ID Marks and Hints

#480 has a dark blonde coat, tan tipped claws, and some scars on both sides of his neck. His ears are wide set and his right ear is floppy. His muzzle is long, straight, and narrow. In 2013 he had a prominent scar above his right eye.

In the fall months, his body is walrus-shaped and he has a relatively thick, wrinkled neck.

Life History

#480 was first classified as an older subadult bear in 2001. He, along with #218, uses some of the most efficient fishing techniques at the falls. He prefers the jacuzzi, but unlike many other bears, he is often tolerant of numerous other bears around him while he eats. These bears wait patiently for him to finish and eat any leftover scraps.

In recent years he is one of the few bears that can successfully fish at Brooks Falls in September. Late in the season, he is often seen fishing the far pool.

Despite the fact that #480 is neither as large nor aggressive as other male bears, he was rarely displaced from his preferred fishing spot in the jacuzzi. However in recent years, other mature males have surpassed him in size. As a result, #480 has slipped down the bear hierarchy. Bears like #747 and #856 will now regularly displace him from his preferred fishing spots.



ID Marks and Hints

#489 is easily recognizable because of his large, distinctive scar on his left hip.

His ears are large, upright and triangle shaped. His nickname, Ted, is short for “triangle-eared.”

This is a medium-large bear. His coat is light brown and often patchy when shedding, but is darker in September. He has a slightly drooping lower lip, dark eye rings, and dark claws.

Life History

Bear #489 was classified as a subadult when first identified in 2001 and has grown into a mature adult since then.

In 2007, he received a wound on his left hip during a brief altercation with #218. While the wound he received looked vicious, it has since healed and scarred over, and is this bear’s most identifiable mark. This is yet another example of a bear’s remarkable ability to heal.

Through 2008-2013 he was one of the very few bears regularly seen fishing the river in mid-August. During these periods he has repeatedly

entered Brooks Camp, something most adult males do not do regularly.

#489 often begs fish from other bears, sometimes very vocally. He is one of the few adult bears to show this behavior. Other bears will not give #489 fish, but this technique does put him in a good position to access discarded fish remains.

Bear 634 Popeye

Adult Male



ID Marks and Hints

This bear has a medium-large body with large (furry) and dark forearms. His coat is brown, grizzled, and generally uniform with blondish ears.

#634's muzzle is short and upturned. He lacks distinctive scars.

Life History

Bear #634 was classified as a subadult in 2002 and then as an adult in 2003. In May of 2004 he appeared on the beach at Brooks Camp with a severe limp. He would not place any weight on the injured leg. Now, however, no apparent injury can be seen.

He fishes the far pool and the lip of the falls. #634 will aggressively steal fish from smaller bears, especially early in the salmon run. He occasionally wanders through the lower Brooks River area, including through camp. This is one bear that may be seen near Brooks Camp in May and early June.



July 2013



Sept. 2013



July 2010



July 2004



Sept. 2012

ID Marks and Hints

#747 is a large adult male with a medium brown coat with reddish shoulders. Early in the summer, his fur regularly sheds out in an erratic pattern and he often has a noticeable shed patch on his forehead. During the fall months, his fur is dark brown.

His ears are round and peg-like, and his face has prominent brow ridge. He has dark claws,

a short muzzle, and a large, stocky, and squat body.

Life History

First classified as a subadult in 2004, #747 is now considered an adult bear. He is successful at fishing and is a regular visitor to Brooks Falls in July. He also fishes the falls in September and October.

#747 does not appear to be wary of people on the viewing platforms near Brooks Falls, and in 2013 was occasionally seen near the mouth of the Brooks River. In years past, he was rarely seen in areas with high numbers of people. #747 also seems to be very tolerant of other bears, like #16 and #489.

Since 2007, he has noticeably grown in size and as a result is not easily displaced from his favorite fishing spots below Brooks Falls. He is now one of the most dominant and largest bears fishing on the river.

He was badly clawed during several fights in 2012. The resulting wounds may result in scars.



ID Marks and Hints

#755 is a medium sized adult male with a golden brown coat, darker head, and a tapering muzzle. His dark eye rings can be a distinctive feature early in the summer.

In the fall, his coat is a uniform brown with contrasting, light colored ears.

Life History

#755 was classified as a subadult when first observed in 2004. Even though he fishes at Brooks Falls regularly, he has never shown much tolerance towards humans or other bears.

He seems to be wary of humans and usually will not approach the platform side of the river when people are present. He has been observed running away from the riffles area when people approach.

#755 will fish at the falls during daylight hours when the platform is full of people, but rarely leaves the far side of the river at those times. If

he does approach the falls platform, he moves quickly behind it, never in front. Sometimes, however, he will fish the lip of the falls when only one or two people are on the platform.

In recent years, he seemed less willing to yield space to other adult bears. This may indicate that he is becoming more habituated towards other bears and/or more dominant as he matures.



ID Marks and Hints

#814 is a large adult male with a flopped over or cropped right ear, and a distinctive scar above his right eye.

In June and July, his back has a pronounced saddle and is sometimes noticeably shed out. Late in the summer, his new coat is a uniform dark brown.

Life History

#814 was described as a young adult male when he was first identified in 2005. Since 2008, this bear has becoming increasingly dominant. He will steal fish and regularly displaces other bears from his preferred fishing spots.

He was observed killing #435's spring cub in June 2009. It is unclear why adult males will sometimes kill cubs as the cub is not always eaten. Certainly in some situations hunger plays a role, but at other times a cub may be killed and not consumed. Motivation to mate with the cub's mother is another hypothesis as to why some males perform infanticide.

In October 2012, #814 was seen guarding a food cache near the mouth of the Brooks River. Later observations determined that he was guarding and feeding on a dead bear. It is unknown whether or not #814 killed the bear he was feeding on. He likely appropriated the cache from #469 who was seen digging in the same spot.

For bears like #814, calories are calories. It makes no difference whether or not the calories come from salmon or another bear. #814's actions demonstrate the successful survival skills of a dominant bear.



ID Marks and Hints

#856 is a large adult. He has a uniform brown and grizzled coat. His ears are blonde and wide-set. His forehead is wide, furred, and has a noticeable shed pattern in July. His face and front legs may have numerous small scars.

Unlike most bears, #856 is often seen repeatedly licking his lips while he fishes the lip and walks around Brooks Falls.

Like #747 and #814, he is one of the largest bears that regularly uses the Brooks River.

Life History

#856 was classified as a young adult in 2006. Since then, he has been one of the largest, and most dominant bears along the river. Most other bears, including #747 and #814, typically yield space to him.

Over the past several years, he has mated with several adult females. In Katmai, most male bears do not have the opportunity to mate with females until they are in their early to mid teens—an age when they are large enough to compete other adult males for access to females. However, the hierarchy can change quickly, even within the same season. Therefore most bears,

like #856, are adapted to take advantage of their position in the hierarchy.

In July 2011, #856 managed to separate #402 from one of her cubs; he later returned and killed it. It is unclear why adult males will sometimes kill cubs as the cub is not always eaten (also see #814). In this instance #856 and #402 mated in 2010. Therefore, it is possible #856 killed his own offspring. These two bears mated again in 2012, and #402 returned with three spring cubs in 2013.

Bear 868

Wayne Brother

Adult Male



ID Marks and Hints

#868 has a medium sized body with a light brown coat, and a grooved, medium length muzzle. His ears are wide set, triangular, and white. When shedding, he has a distinct vase-shaped patch around his tail area.

Life History

Bear #868 is a young adult male. He was first classified as a sub-adult in 2006. He resembles his mother, #438, and is the sibling of #83. A third sibling from this litter is rarely seen.

#83 and #868 are regularly seen in the Brooks area and they have fished Brooks Falls at the same time, but #868 doesn't seem to be as dominant as his sibling. He can be seen fishing at Brooks Falls, the riffles, and in the lower river but often yields space to other bears.

Bear 879

Adult Male



ID Marks and Hints

#879 has a tall, medium-large body and a brown coat. His muzzle is long and straight. He has triangular, upright ears and a long neck.

Life History

#879 was first classified as a subadult in 2006. He is now a young adult male. This is a “fall” bear who has not been identified in July. He may fish other streams in the summer, choosing to use Brooks River only later in the season. Alternatively, he may use Brooks River in July but is unrecognizable upon returning in late August or September.

Like the salmon they depend upon, brown bears go through dramatic physical changes over the course of a few weeks. As they gain hundreds of pounds and shed their fur, it can become difficult to distinguish individuals from one another

or match those individuals to bears observed earlier in the season.

Adult Females



#236 and yearling cub
in July 2008



#409 in
Sept. 2009



#409 and spring cubs
in July 2007



#468 in July 2006. Note
the breeding scars.



#403 and 2.5 year old cub
(bottom) in July 2007

ID Marks and Hints

Like adult males, the bodies of adult females look filled in, their heads appear smaller in proportion to their bodies, and their ears are generally wide-set.

Genitalia is usually difficult to see on female bears, but you can still sex adult females by watching them urinate. Female will urinate backward between their hind legs.

Occasionally, scarring can be an identifier of females. During spring and early summer, scarring can sometimes present be on the back of a female's neck. These scars can be the result of male bears biting them during copulation.

The presence of cubs is an absolute indicator that you are looking at a female. Male bears play no role in raising young.

Life History

Adult females, or sows, generally weigh one-half to three-quarters as much as males, but can still grow to weigh between 300-600 pounds (136-272 kg) at maturity.

In the Katmai region, female bears generally reach sexual maturity around six years of age, but they may not produce their first litter until several years later. Mating takes place in late spring and early summer. However, fertilized embryos will not implant in the uterus until a female dens for the winter.

This delayed implantation is a remarkable adaptation which allows the female to give birth in the den—a place where the vulnerable newborn cubs are most protected. A female may have no offspring at all if her body didn't receive the nutrition it needs over the course of the summer and fall.

In the Katmai region, females typically keep their cubs through two summers, and less commonly through three summers.

Bear 94

Adult Female



ID Marks and Hints

#94 is a small adult female with a uniform medium brown coat, a tapered muzzle that turns up at the nose, dark eye rings, and spade-shaped, proportionally large ears.

Life History

#94 was classified as young adult female with two spring cubs in 2008.

In July 2011 she was courted by #856. Courting is a process through which adult males habituate adult females to their presence before mating. During this courtship the pair spent extensive time along Brooks River's north bank, in the area between the Cultural Site Trail and Brooks Falls. As #856's consort, #94 approached the falls much closer than she would have as a single bear.

Courting brown bears are promiscuous. While #856 fished at the falls, #94 mated with other bears. During 2011 she mated with at least four males: #45, #218, #747, and #856. However, she had no cubs with her when first seen in 2012, nor did she have cubs in 2013. Whether she lost cubs, or simply failed to give birth, is unknown.

Bear 128

Grazer

Adult Female



ID Marks and Hints

#128 is a medium sized adult female with a dark blonde coat and dark patches around her eyes. She has large, oval- shaped, and widely spaced ears.

She fishes the lower river, the cut bank, and the riffles.

Life History

#128 was first classified as a subadult female in 2009 and as an adult in 2010. She is another bear who has learned to associate people with fish. This is a behavior shared with other bears like #438 and #854.

She will rapidly approach anglers who have a fish on the line. Anglers should give this bear extra space in the river and stop fishing well before she is within 50 yards.



ID Marks and Hints

#130 is a small adult with a medium-blond coat and round ears of the same color. She has dark brown claws that are lighter on the tips and slight eye rings. Her most distinctive feature is a scar above her left eye.

Life History

#130 was classified as a 2.5 year-old subadult in 2009. She commonly fishes the cut bank and lower Brooks River. Occasionally she visits the falls, but she is not large enough to regularly fish there. This young bear shows signs of habituation towards people, especially around Brooks Camp, but she usually avoids other bears and people when surprised.

She is believed to be the offspring of #409. While #130 was still being raised by her mother, she received a bloody wound above her left eye that resulted in her recognizable scar.

As an older subadult, she showed interest in mating. During 2011 she followed a courting pair around Brooks Camp for several days. Shortly afterwards she attempted mating with another subadult. These activities probably reflect the curious and playful nature of subadults rather than serious attempts at reproduction.

Bear 402

Adult Female



ID Marks and Hints

A medium sized adult, #402 has a short, dark blonde coat of fur. Her face is crescent shaped with a straight profile.

Life History

#402 has had four known litters, one of which she raised into their third summer. In 2007 she arrived at Brooks River with a single spring cub, but soon lost it. She then went back into estrus and several males pursued her, most prominently #218. In 2008, she had three spring cubs.

In 2011 she arrived at Brooks River with three more spring cubs, but she lost this litter by 2012.

She fishes the lip and in the lower river; sometimes she will dive in the jacuzzi. She is among the few females who will fish at Brooks Falls with spring cubs.

In July 2011, after a prolonged confrontation with #856, she and her smallest cub became separated. During this time the cub was completely defenseless, yet other male bears ignored it. #856 later returned to the falls and killed the cub.

DNA analysis confirmed that #402 and #403 are siblings. These bears share a mother, physical features, and some behavioral characteristics. Both will dive for fish, a fairly rare technique.

Bear 409 Beadnose

Adult Female



ID Marks and Hints

#409 has a long, straight muzzle with a slightly upturned nose and a medium-large body.

She has a light to medium-brown coat with wide-set, blonde ears.

She is often confused with bear #408, especially in September and October.

Life History

#409 was classified as a subadult in 1999 and is frequently seen along Brooks River. Like #410, she appears habituated to the presence of humans and will use areas near people to rest, travel and feed.

#409 had her first known litter of one cub in 2004, and she could be seen with the cub latched onto her back as she swam across the river. She returned in June 2007 with three spring cubs, but was soon observed with only two cubs. She raised the two survivors through 2008. One bear from this litter is now recognized as #130.

From 2009-2011, #409 was single and this may be a major reason why #409 has grown into one of the fattest females to be seen in the fall. Her size can easily be compared with females caring for cubs. Raising offspring is very energetically taxing for bears. Females with offspring must sacrifice body fat to raise cubs. #409, in recent years, has been able to devote more energy to her own survival as her overall size indicates.

In 2012, she returned with three spring cubs. This is her third known litter.

Bear 410 Four-Ton

Adult Female



ID Marks and Hints

#410 is a large adult female. Her coat is medium brown with a grizzled appearance on her head and neck.

She has a recognizable dish-shaped face and prominent muzzle. Her claws are dark, and she lacks distinctive scars.

Life History

#410 is one of the largest females frequenting the Brooks River and fishes almost anywhere. She has been observed fishing in Naknek Lake, the lower Brooks River, and both above and below the falls. In 2007, she returned with two spring cubs, marking her third litter. She returned to the Brooks River Area in 2008 with the same two cubs, then yearlings, but lost one in early July.

She is arguably the most human habituated bear to be found using the Brooks River, even while caring for cubs. #410 has been observed with people and heavy equipment operating within 15 meters. She will sleep on the trail near the

bridge and in front of or underneath the wildlife viewing platforms.

Habituation is simply defined as getting used to something. Human habituated bears are used to our presence and often tolerate our close proximity. This gives us remarkable opportunities to observe them, but they should not be considered tame or safe to be close to. Habituated bears are more likely to obtain food and play rewards (unattended equipment) from people if we are not careful. Plus, if they do react defensively, then we also have less time to react because they may be close when they are defensive.

Bear 415

Adult Female



ID Marks and Hints

A medium-small adult female, #415 has a brown, uniform coat and a short straight muzzle. She has no distinctive scars.

She almost continuously bobbles her head when fishing the lip of the falls.

Life History

#415 isn't easy to identify by appearances alone. Pay close attention to her behavior.

She is very aggressive with other bears when fishing the lip of the falls. Even with her small stature, she will often back down larger male bears to retain her preferred fishing spot. In the fall she has been seen chasing #480 out of the far pool.

In 2012, she returned to the Brooks River with three spring cubs. She was not seen in July 2013.

Bear 435 Holly

Adult Female



ID Marks and Hints

#435 has a medium sized body with a distinctive light blonde coat.

Her ears are large and lighter than her coat. She has a dished face and short muzzle. Her dark eye rings are distinctive early in the summer.

Life History

#435 was identified as a young adult female in 2001. She can be a nervous mother around other bears. During the summer of 2006, she repeatedly treed herself and her cub in the middle of Brooks Camp in response to other bears. This cub is now recognizable as #89, an adult male.

In 2009, she returned to Brooks River with one spring cub. In late June, this cub was killed by #814.

She is very skilled at catching fish in the lower river and along the cut bank. She will visit Brooks Falls, but typically does not occupy fish-

ing spots there. Instead, she fishes downstream of the falls and will scavenge fish carcasses that other bears leave behind.



ID Marks and Hints

#438 is a medium small female with a light brown or blondish coat. She has wide-set and large blonde ears.

Her muzzle is grooved and she has distinctive white claws.

Life History

#438 was first classified as an adult female in 1999, but older records suggest she was likely raising yearling cubs in 1997.

She raised her first confirmed litter into their third summer. In 2010, she kept her most recent litter into their fourth summer. It is rare for bears in Katmai to care for offspring this long.

In 2004, #438 and her cubs directly approached an angler with a fish on his line. Within 30 minutes, the family group moved downstream and they obtained a bagged fish from an angler who

had dumped it on the beach as the family rapidly approached.

In 2009, she and her two cubs obtained garbage from the incinerator building at Brooks Camp. After receiving this reward, they frequently investigated the buildings near camp and were difficult to haze away.

Help keep bears from learning these behaviors. Store all food and garbage securely. Stay alert at all times and stop fishing well before a bear approaches within 50 yards.



ID Marks and Hints

#608 has a medium-small body and a dark blonde coat with lighter head. The fur around her neck often gives her mane and forehead a fluffy appearance.

She has dark claws and a long muzzle.

Life History

#608 was first seen as an independent bear in 2002, when she was estimated to be 2.5 years old.

DNA analysis indicates that she is the offspring of #236 and #219 and the sibling of #604. Along with #604, #608 was raised in the Brooks River area. She frequently fishes the lower river and uses the area around camp. However, she is a defensive mother around bears and people.

She and her first litter of cubs obtained play rewards in the form of unattended property on the lodge porch, cabin porches, and from boats.

There is good evidence that she also obtained play rewards from humans as a cub.

While #608 is not a “problem” bear, her past behavior, especially with cubs, highlights the importance of maintaining appropriate distances as well as storing all equipment properly so that bears don’t learn to associate our possessions with toys.

She was seen once in July 2011, but not since then.

Bear 700 Marge

Adult Female



ID Marks and Hints

#700 is a small adult female with a short brown coat. The fur on her face and legs is usually longer than on her body.

She has a sharp muzzle and dark claws. Her ears sometimes appear very large, especially early in the summer.

Life History

#700 was first identified as a subadult in 2003.

She is apparently wary around other bears (but relatively habituated to people) and kept cubs underneath the falls platform or treed them nearby while she fished. She acts very skittish around the falls in response to other bears.

She raised her first litter into their third summer. In 2008, this family was more often heard than seen as her cubs were particularly vocal when begging for salmon.



ID Marks and Hints

This bear has a small, rotund body. She has a light brown coat, dark claws, and a straight and short muzzle that resembles #468.

Her ears are perched high on her head. During the fall months, she often has longer and more reddish fur on her neck and shoulders.

Life History

#708 is an adult female and was first identified as an independent 2.5 year old bear in 2003.

She is another female that appears to be habituated to the presence of people and the activity around camp, often passing directly through camp if not discouraged.

She can be seen fishing from the falls downstream to the lower river and often stands on her hind legs for prolonged periods to scan the river.

In 2008, she arrived in the Brooks River area with one spring cub. While caring for this cub

during the fall months she fished the head of Brooks River, possibly to avoid other bears. This was a marked behavioral change from years past.

#708 is believed to be the offspring of #468 and the mother of #284.



ID Marks and Hints

#744 has a small, thin body. Her summer coat is blonde to light brown in color. She often sheds most of her coat by the end of July.

She has large, triangular ears, dark claws with lighter tips, and her head and feet appear large in proportion to her body.

Life History

Bear #744 is a small adult female regularly seen along the Brooks River. She was first identified as a subadult in 2004.

She appears to tolerate other bears, even large males. She will approach large males at the falls in hopes of picking up any fish scraps they leave behind.

She has not been observed with cubs, but has showed signs of estrus. #744 seems habituated to people and is often seen on the beach in front of camp and near the bridge.

Bear 854 Divot

Adult Female



ID Marks and Hints

#854 is another small adult female. She has a golden blonde coat in July which darkens by late August.

Her muzzle is short and straight. She has scars on both hips. In July, #854 often has a noticeable shed patch on her forehead.

Life History

Bear #854 shares a similar life history as her sibling #790. Her mother is #216 and #24 is her father. She was classified as a subadult in 2004. This is one bear that is occasionally seen near Brooks Camp in May and early June.

#854 has learned to associated people with fish. In the lower Brooks River, she will often sit or lie on the shore while people fish nearby. She often looks like she is resting and not paying attention to the water, but when someone hooks a fish, she quickly enters the water in pursuit of an easy meal.

Anglers should be especially careful around bears and remember that the sound of a splashing fish is the sound of food to a bear. Each time a bear takes a fish from someone's fishing line it reinforces that behavior. The bear is then more likely to approach people in the future with the idea of obtaining food.

Subadults



ID Marks and Hints

Subadults are generally small to medium sized bears. Like adolescent humans, subadults appear to have not yet grown into their body, which sometimes gives them the impression of having a big head and ears.

Behaviorally, they can be recognized by their playful and inquisitive nature. You might see a subadult play-fighting, chasing a duck, or awk-

wardly attempting to fish. They are sometimes skittish around larger adult bears.

Young adult females, due to their smaller size, can sometimes be confused with subadults but are less lanky and more filled-out. They will also behave more confidently than a subadult.

Life History

Subadults, young brown bears typically between 2.5 and 5.5 years old, are independent of their mothers but have not yet matured into an adult bear.

The distinction between a subadult and an adult bear is somewhat arbitrary and is defined by reaching sexual maturity. Like in humans, there is no set age when this happens, but it generally occurs around the bear's sixth year. Until they reach maturity, subadults spend their time learning how to fit into the complex world of bears.

Because of their relatively small size and low position in the bear hierarchy, the subadult years are a difficult time in a bear's life.

As the lowest members of the bear hierarchy, they are forced to yield space and food resources to larger adults. Subadults are relegated to the less than desirable fishing spots, and sometimes face predation by other bears.

Bear 273

Subadult Female



ID Marks and Hints

#273 is medium sized subadult with blonde, shaggy coat. Her ears are large and round. She has a furry face with closely set eyes.

Life History

#273 is an older subadult first observed in 2011. Based on physical appearance and behavioral traits it's believed, but not proven, that this is the same bear formerly known as #198. Both #198 and #273 frequent the lower river, using the same areas to rest or slowly patrol back and forth for salmon.

Unlike #198, #273 shows little curiosity towards human buildings or gear. While #198 repeatedly investigated and damaged objects around Brooks Camp in 2010, #273 has demonstrated disinterest in people's belongings.

It is also quite possible #198 simply outgrew her curiosity towards humans and our objects.

Bear 284

Subadult Female



ID Marks and Hints

#284 is a medium-sized subadult who was classified as a 3.5 year old bear in 2011. She has uniform, medium brown coat and a prominent shoulder hump.

#284 looks remarkably similar to #708, who is believed to be her mother.

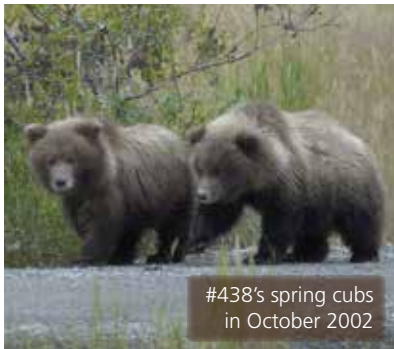
Life History

Like many subadults, #284 is curious and explores the world around her through play. People have watched her dig holes, bounce on fallen trees, slide down the river bank, and balance pumice on her nose. Her behavior has been described as erratic and even “crazy,” but these terms are not accurate descriptors. #284’s behavior is typical of many subadult bears who are still learning and exploring their world.

#284 should be given extra space. Despite growing up in the Brooks River area and often encountering humans, she has hop-charged people on several occasions.

#284 also seems to pay extra attention to anglers, suggesting that she may have gotten fish from people in the past and now associates the two.

Cubs



ID Marks and Hints

Cubs are small, young bears dependent on an adult female. First year cubs are called spring cubs or cubs-of-the-year, and are generally very small with dark fur. They can sometimes have a collar of lighter fur around their neck.

Cubs in their second summer are called yearlings. Their coats are generally lighter than spring cubs, especially early in the summer.

Relative size can help differentiate between spring, yearling, and 2.5 year-old cubs. Overall, spring cubs are very small compared to their mothers, while 2.5 year old bears can be nearly as large as their mother. The top row of photos follows the growth of one litter through two summers. The bottom row of photos follows the growth of one litter through three summers.

Life History

Cubs are born in the den in mid winter. At this time they are hairless and weigh about one pound. After birth, they will nurse until the mother emerges from the den in mid-spring. Cubs will nurse as long as they remain with their mother, although as cubs age they will rely less and less on mother's milk for nutrition.

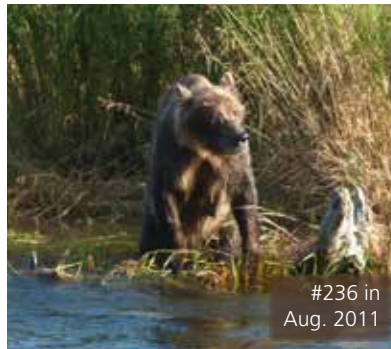
Upon emerging from the den, they normally weigh between 10-12 pounds (4.5-5.5 kg). By the end of their first summer, they may double in weight.

keep their cubs through two summers, and less frequently through three summers. Cubs form strong, albeit temporary, social bonds with their siblings and mother.

Their playful demeanors often mask the risk cubs face. Mortality is very high within the Katmai region. As many as 2/3 of cubs will not survive their first year. Infanticide, drowning, falling, and becoming lost are just some of the obstacles these young bears must overcome.

In the Katmai region females will generally

Bears No Longer Seen at Brooks River



ID Marks and Hints

The following profiles are about bears that have not been seen along the Brooks River in many years.

You should not expect to see these bears, but they are included at the end of this book because they can still teach us many things about the lives of bears.

Bears in this section are arranged by number only.

Life History

Some of these bears returned to the Brooks River for nearly 25 years before they stopped. Others are younger, but still mature, adult bears who no longer are seen.

We do not know why these bears stopped using the river. Some older bears like #6, #16, and #236 were frequent users of the Brooks River year after year after year. Since they are no longer seen here, there is a distinct possibility that they are deceased.

Other adult bears like #403, #408, and #790 may have met the same fate as the older bears mentioned above. However, it is also possible

that these bears decided to use areas other than the Brooks River.

Bears have the ability to alter their behavior and patterns of movement when they discover new sources of food, find that a formerly reliable food source is unreliable, or to deal with greater/lesser levels of competition from bears or people.

Disease and injuries can shorten a bear's life, but some of these bears may have found success elsewhere by practicing behavioral plasticity in the wake of changing food sources or competition.



ID Marks and Hints

#6 has an orange-blonde coat, his left ear is flopped over, and has a dog-like muzzle. He also has a thin lower lip and dark claws. Overall, he has an old appearance.

He can be confused with #211 who also has a droopy lip and ear, but #211 is darker, stockier, lower to the ground, and has a more barrel shaped torso.

Life History

Bear #6 was one of the oldest and most recognizable bears in Katmai due to his preferred fishing spot at the top lip of the falls. He was classified as a young adult in 1988 and is believed to be one of the oldest bears that frequented the Brooks River.

When fishing at the top lip of the falls, #6 typically stood in one spot waiting for fish to jump within range rather than shifting locations. He could sometimes be observed holding his head out with his neck extended, then raising (bobbing) his head upward once or twice in quick succession as if sniffing the air.

Despite his old age he often displaced younger males at the top of the falls. In July, he fished the lip but also fished in the far pool and the jacuzzi, and he occasionally stole fish. He was often seen fishing in, or sleeping on the banks of, the lower river late in the season.

After being observed for more than 20 consecutive years, he has not been seen since 2010.



ID Marks and Hints

#16 has a cinnamon-brown coat with blonder ears, a drooping lower lip, white claws, and an old face.

This bear has no large distinctive scars, but he does have scars on the side of his head and shoulders. In recent years, he has appeared thinner than most adult bears.

Life History

When he was last seen in 2011, he was among the oldest bears in the Brooks River area. #16 was classified as an adult in 1988, placing his age around 30 in 2011 and well past an adult male brown bear's average life expectancy.

He returned to Brooks River every year from 1988 to 2011. At the falls in 2011 he rarely fished. Instead, he regularly begged other bears for fish scraps, and was often able to obtain leftover fish parts. When not begging he often rested near the Falls Platform or on the small island nearby. Although it appeared other bears would "give" #16 fish, such compassion is believed to lie outside a bear's capacities.

It is likely that some bears, notably #747, learned to tolerate #16 because of his advanced age, poor physical condition, and submissive posture. This increased his chances of scavenging leftover fish from other bears. In some respects #16's advanced age and dramatic fall to the bottom of the hierarchy are reminders of the harsh realities wild animals face.

Yet #16's presence at Brooks Falls, when other bears of his age class and status have died or otherwise failed to return, demonstrated his survival skills.



ID Marks and Hints

#24 is a large, long-legged, tall, and dark bear with white claws.

His coat is dark brown with hints of blonde around his neck. Large areas of his hind quarters are usually bare when shedding.

He has a narrow, straight "Roman" nose giving his face a black bear-like profile.

He is missing a chunk of flesh from his nostrils and numerous scars can be visible, but none are distinctive.

Life History

For many years, #24 was one of the largest, most dominant bears seen along the Brooks River. He was only observed at Brooks from late June through July.

He was patient when fishing, preferring to catch fish at the pool and cascades on the north side of the falls.

Bear #24 has a reputation of being hyper-dominant and was observed killing other bears. He was displaced as the dominant Brooks bear in 2006 and 2007 by #864. After his encounters with #864, he was less aggressive towards other

bears, but still very dominant. He has not been seen since 2009.

DNA analysis has confirmed that he is the father of #790 and #854.



ID Marks and Hints

#211 is large and dark with a uniformly colored coat.

He has a distinctive muzzle and profile. His head is wide with a thin muzzle and a drooping lower lip. His claws are dark and his right ear droops. This bear lacks a prominent shoulder hump. He has numerous scars on back, face and head, but none are distinctive.

#211 can be confused with #6, especially in September and October, but #211's barrel-shape, medium dark fur, and lack of a prominent shoulder hump set him apart.

Life History

Bear #211 was first described as an adult male in 1996. He was regularly seen in July at Brooks Falls and he also returned to the Brooks River in September.

When fishing, he preferred to sit in the "jacuzzi" below the falls and often sat in the water to eat his fish instead of losing his fishing spot.

He was also observed napping in the water above Brooks Falls after fishing for salmon. #211 was last seen in 2010.

Bear 216 Marilyn

Adult Female



ID Marks and Hints

#216 is a medium-sized adult female. She has a prominent shoulder hump, a shaggy and dark blonde coat, and blonde ears.

Her muzzle is straight and the long hairs on her chin give it a bearded appearance.

Life History

#216 was observed along the Brooks River every year from 1996-2008. She fished at the falls and the lower river area, and appeared habituated to humans.

She was sometimes aggressive towards other bears and had been observed bluff charging bears beneath the Falls Platform. She is the mother of females #790 and #854.

Beginning in 1998, #216 raised several litters of cubs, but only kept them through two summer seasons. She was not observed caring for cubs into their third summer.

In 2005, she arrived at Brooks with four spring cubs. By the end of the summer season in 2006, she had only two left from this litter. She was pursued and courted by several males in 2007.



ID Marks and Hints

#219 is distinctive and easily identified in mid-summer. He has numerous, large scars on his head, face, neck, and body.

His claws are white and he is missing the outermost claw on left front foot, hence the nickname. His coat in early summer is reddish-brown. In the fall, his coat is dark brown and most of his scars are not visible.

Life History

In October 2008, during an event rarely seen, park biologists observed #219 dying in the Brooks River from unknown but apparently natural causes. He was seen coughing up blood before he died in the river (see the photo from October 2008). His body eventually washed into Naknek Lake and disappeared.

#219 is another bear that apparently never habituated to humans and rarely approached the Falls Platform when people were present. Late summer and fall, he was sometimes seen in the lower river.

He fished the riffles downstream of the Brooks Falls and regularly stole fish from other bears. Some of his scarring reflected this behavior.

DNA analysis confirmed that he is the father of #604 and #608.



ID Marks and Hints

This bear is tall and thin with tan claws and a short, blocky muzzle. However, the key to recognizing #234 is by looking at his ears. He is missing his left ear.

Also, look for his light brown to blonde coat which is sometimes ragged in appearance.

Life History

Bear #234 was one of the easiest bears to recognize along the Brooks River due to his missing left ear and prominent fishing location on the lip of the falls. He lost his left ear late in 2001 or in the spring of 2002.

He was predictable in his fishing activities, almost always fishing the lip of the falls and less frequently in the far pool.

Like #6 and #16, he appeared to be one of the oldest bears that frequented the Brooks River. In 2009 and 2010, he showed visible signs of aging. In 2009, he arrived looking very thin with a swol-

len front paw. Visitors with binoculars could often see that his teeth were worn to the gums.

In the past, most bears that fished the lip of the falls yielded space to #234 when he approached, but this was no longer the case in 2009 and 2010 as #234 more readily yielded to younger, more dominant males. He has not been seen since 2010.

Bear 236 Milkshake

Adult Female



ID Marks and Hints

#236 is a large adult female. She has a relatively large shoulder hump and in the past a round, filled in body. Her coat is medium blonde.

She has the classic grizzly/brown bear dish-shaped face, a rectangular muzzle, and lighter, wide-set ears. Her large teats are usually easy to see, especially when she is raising cubs.

She appeared thin in the fall of 2011, possibly from the results of aging or an unknown illness or injury.

Life History

When last seen in 2011, #236 was one of the older adult females to frequent the Brooks River. She fished the lower river and the lip of the falls.

She was first identified in 1997 caring for two spring cubs, and has had several other litters. Records from the past 20 years indicate that she is one of the most fertile and successful female bears to use the Brooks River. DNA analysis has confirmed that she is the mother of #604 and #608.

In 2003, #236 was seen with four spring cubs, which is unusual for any sow. Remarkably, she

returned in 2010 with more four spring cubs, her fifth known litter.

By the end of August 2011, she has lost the entire 2010 litter. In almost every instance the specific cause of a cub's death remains unknown. #236 probably lost her cubs to a variety of factors. As one of the older sows with cubs in the Brooks River area, a lean salmon run in 2011 may have taxed #236 beyond her physical limits and left her unable to support and defend cubs.



ID Marks and Hints

#247's most identifying characteristic is his distinctive, protruding lower-left canine tooth.

Overall, he is a medium-sized bear with a rectangular muzzle, tan-tipped claws, a brown coat and wide set ears.

He is sometimes confused with #420. However, #420 is much larger and has several protruding teeth on the right side of his lower jaw.

Life History

Bear #247 was distinctive because of his large, protruding canine tooth. As early as 2000 observers at Brooks River reported that his namesake tooth had "been this way for many years" and it did not seem to affect his ability to fish.

He fished the far pool and never seemed to approach the platform side of the river. #247 was not seen in areas of high human use.

Although it can never be known for sure, his distinctive tooth is probably the result of a fight with another bear.

Video footage taken of this bear in October 2009 showed him looking thin and slow moving. Unseen injuries and illness can often prevent bears from feeding properly during the critical autumn months. Bears who are thin in the fall, like #247, may even starve to death in the den. He has not been seen since 2009.



ID Marks and Hints

A large female, Bear #403 has a blonde coat that darkens to reddish-brown in the fall.

Her facial profile reveals a straight “Roman” nose resembling a polar bear rather than the classic dish-shaped face of a brown/grizzly bear. She resembles #402.

Life History

Bear #403 was first identified as a 2.5 year old in 2000. As a subadult and young female, she became successful with multiple fishing styles, most uniquely diving.

Along with submerging herself completely underwater to find salmon and roe, #403 fished the lip of the falls.

She also stole fish. #403 intimidated sub-adults and smaller adult bears into giving up their fish, and has obtained fish from the lines of anglers.

#402 and #403 are siblings, and while #402 frequently uses the Brooks River area, #403 has not been seen at all since 2008.



July 2010



Sept. 2007



July 2002



July 2007



Sept. 2010

ID Marks and Hints

This is a medium adult female with a dark blonde to blonde coat.

She can easily be confused with #409 who also has light blonde ears and a similar body and shape.

#408 has light blonde ears and a long and slightly upturned muzzle. She will fish the riffles below Brooks Falls and in the lower river area. She has a crooked claw on her left front foot, hence her nickname.

Life History

#408 was first identified as a young adult female in 2001. Her behavior that year hinted at subadult, but she was observed being pursued by male bears and had scars on the back of her neck, possibly from mating.

She was first observed with cubs in 2005. She was very attentive to these three cubs and occasionally charged other bears that were simply walking by. She raised this litter into their third summer.

Both #408 and #409 are remarkably similar in appearance, especially late in the season. It is suspected that these two bears are siblings.

She fished the lower river and riffles areas. She has not been seen since 2010.



ID Marks and Hints

This bear has a compact, medium-large body and a brown coat that becomes lighter towards the front of his body.

#418's claws are dark. He also has a small, but distinctive, scar above his right eye and a short, stocky and dog-like muzzle.

Life History

Bear #418 was first recognized as an adult in 2001.

While fishing, #418 often plunged quickly into the river. He usually fished the jacuzzi and far pool.

In the past, he used to regularly fish at Brooks Falls in July, but was not seen during the autumn months. However, this pattern was broken in recent years, and #418 returned for brief visits in October 2009, October 2010, and September 2011. However, he was not observed in 2012.

Bear 420 Genghis

Adult Male



ID Marks and Hints

#420 is easy to identify due to his protruding teeth on his lower-right jaw.

His is a long, large bodied bear with a blocky muzzle, rusty brown coat, tan-brown claws, and a floppy left ear.

He can be confused with Bear #247, but that bear is smaller and only has one protruding canine tooth on his left jaw.

Life History

#420 was aggressive around other bears and regularly stole fish.

In 2005, he was seen with a very large, open wound on the left front leg that has since healed and scarred over. In 2007, he returned to the Brooks River with a broken lower jaw and large, open wounds on both sides of his body.

The jaw injury appeared to affect his ability to chew and swallow fish that he caught. However, he showed signs of rapid healing, both from the jaw injury and the wounds on his body.

In 2009 and 2010, he was one of the more dominant bears fishing at Brooks Falls.

Even though #420 was typically very dominant at Brooks Falls, he did not appear to be habituated to humans and rarely approached the Falls Platform side of the river. He was last observed in 2010.

Bear 468 Reggie

Adult Female



ID Marks and Hints

This is a medium-sized and sometimes fat adult female. #468 has a brown, uniformly colored coat. Her wide-set ears appear lighter in color by September.

Her facial features can be easy to recognize. She has a drooping lower lip, long muzzle, and a prominent brow ridge.

Life History

#468 was first observed and classified as an adult female with one spring cub in 1999. In 2007, she returned to the Brooks River with one spring cub marking her third litter. She is the mother of #708.

#468 fished the oxbow, lower river area, and far pool at the falls. She has not been seen since 2009, when she infrequently used the river.



ID Marks and Hints

In July 2007, #604 had a large open wound on his right hind leg. He is a medium-sized bear with wide set ears and a straight "Roman" nose.

#604 has a brown coat with a darker head and dark claws. He has longer fur under his chin resembling a beard.

Life History

First classified as a 2.5 year old subadult in 2002, #604 was easily recognized in 2007 because of the large, deep wound on his right hind leg. The wound was deep enough that muscle tissue was visible through the skin and fatty layers.

After receiving this injury his behavior changed and he became a more passive bear, often begging for scraps.

According to observations by bear biologists and DNA analysis, he is the offspring of #236 and sibling of #608.

This bear fished lip of the falls and scavenged for scraps below falls. Before receiving his large wound in 2007, he was infrequently seen at Brooks during the autumn months. He has not been observed along the Brooks River since 2007.

Bear 790 Weevil Bear

Adult Female



ID Marks and Hints

This is a medium-small, adult female with skinny legs. #790 has a long, shaggy light brown coat, a straight facial profile, and small ears in proportion to her head.

She resembles #216 and is often confused with #854.

Life History

When first identified in 2005, #790 was classified as a subadult and estimated to be 3.5 years old at that time. She was often seen fishing in the lower river.

DNA analysis has identified #216 and #24 as her parents. #854 is her sibling. She has not been seen since 2009.



ID Marks and Hints

This is a very large male, but his body does not appear to be filled out.

#864's coat is dark brown, his muzzle is blocky and scarring is usually visible on his forehead. The whites of his eyes are often visible giving him a distinctive look.

Life History

Bear #864 was identified in July 2006, but was certainly a large, mature adult at that time. When present, he was arguably the most dominant bear along the Brooks River in July, even fighting and displacing #24.

During the rare instances when he was seen, #864 didn't acknowledge other bears while fishing. This is common behavior for very dominant bears.

In 2007, he was only observed by bear biologists on overnight surveys, and he has not been observed at all since 2008.